

Appl. No. 10/036,308  
Amendment dated April 26, 2004  
Reply to Office Action of December 24, 2003

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This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

- 1-3. (Cancelled)
4. (Previously presented) A method for diagnosing Alzheimer's disease comprising:
  - (a) obtaining blood or cerebrospinal fluid from a subject;
  - (b) detecting the amount of human kallikrein 6 ("hK6") in said blood or cerebrospinal fluid; and
  - (c) comparing said amount of hK6 detected to an amount for healthy control subjects, where detection of a statistically significant increase of hK6 compared with an amount for the healthy control subjects is indicative of Alzheimer's disease.
5. (Currently amended) A method for diagnosing Alzheimer's disease as claimed in claim 4 comprising:
  - (a) contacting the blood or cerebrospinal fluid with an antibody specific for hK6 which is directly or indirectly labelled with a detectable substance;
  - (b) [quantifying] detecting the amount of hK6 by detecting the detectable substance in [the] the blood or cerebrospinal fluid;
  - (c) comparing the [quantitated level] amount of hK6 to [levels] an amount obtained for samples from healthy control subjects where a statistically significant increase in the amount of hK6 [levels] compared with [levels] the amount for the healthy control subjects is indicative of Alzheimer's disease.
6. (Currently amended) A method for the diagnosis [and monitoring] of Alzheimer's disease as claimed in claim 4 comprising

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- (a) incubating the blood or cerebrospinal fluid with a first antibody specific for hK6 which is directly or indirectly labeled with a detectable substance, and a second antibody specific for hK6 which is immobilized;
- (b) separating the first antibody from the second antibody to provide a first antibody phase and a second antibody phase;
- (c) [quantitating] detecting the amount of hK6 by detecting the detectable substance in the first or second antibody phase; and
- (d) comparing the amount of [quantitated] hK6 with an amount [quantitated levels] obtained for samples from healthy control subjects where a statistically significant increase in the amount of hK6 levels compared with [levels] the amount for the healthy control subjects is indicative of Alzheimer's disease.

7-8. (Cancelled)

9. (Previously presented) A method as claimed in claim 6 wherein in step (a) the first and second antibodies are contacted simultaneously or sequentially with the blood or cerebrospinal fluid.

10. (Previously presented) A method as claimed in claim 5 wherein the antibody is a monoclonal antibody, a polyclonal antibody, immunologically active antibody fragments, humanized antibody, an antibody heavy chain, an antibody light chain, a genetically engineered single chain F<sub>v</sub> molecule, or a chimeric antibody.

11. (Previously presented) A method as claimed in claim 5 wherein the detectable substance is alkaline phosphatase.

12. (Previously presented) A method as claimed in claim 11 wherein the alkaline phosphatase is detected using a fluorogenic substrate.

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13. (Previously presented) A method as claimed in claim 12 wherein hK6 is detected using time-resolved fluorescence.

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This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-3. (Cancelled)

1. ~~A.~~ (Currently amended) A method for diagnosing Alzheimer's disease comprising:
- (a) obtaining blood or cerebrospinal fluid from a subject;
  - (b) ~~detecting~~ determining the amount of human kallikrein 6 ("hK6") in said blood or cerebrospinal fluid; and
  - (c) comparing said amount of hK6 detected to an amount for healthy control subjects, where detection of a statistically significant increase of hK6 compared with an amount for the healthy control subjects is indicative of Alzheimer's disease.

2. ~~B.~~ (Currently amended) A method for diagnosing Alzheimer's disease ~~as claimed in claim 4~~ comprising:

- (a) obtaining blood or cerebrospinal fluid from a subject;
- (a ~~b~~) contacting the blood or cerebrospinal fluid with an antibody specific for hK6 which is directly or indirectly labelled with a detectable substance;
- (~~b~~ ~~c~~) ~~detecting~~ determining the hK6 by measuring the amount of the detectable substance in the blood or cerebrospinal fluid;
- (e ~~d~~) comparing the amount of hK6 to an amount obtained for samples from healthy control subjects where a statistically significant increase in the amount of hK6 compared with the amount for the healthy control subjects is indicative of Alzheimer's disease.

3. ~~C.~~ (Currently amended) A method for the diagnosis of Alzheimer's disease ~~as claimed in claim 4~~ comprising:

- (a) obtaining blood or cerebrospinal fluid from a subject;

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- (a b) incubating the blood or cerebrospinal fluid with a first antibody specific for hK6 which is directly or indirectly labeled with a detectable substance, and a second antibody specific for hK6 which is immobilized;
- (b c) separating the first antibody from the second antibody to provide a first antibody phase and a second antibody phase;
- (e d) ~~detecting~~ determining the hK6 by measuring the amount of the detectable substance in the first or second antibody phase; and
- (d e) comparing the amount of hK6 with an amount obtained for samples from healthy control subjects where a statistically significant increase in the amount of hK6 levels compared with the amount for the healthy control subjects is indicative of Alzheimer's disease.

7-8. (Cancelled)

8 ~~9~~ (Currently amended) A method as claimed in claim ~~6~~ wherein in step ~~[(a)]~~ (b) the first and second antibodies are contacted simultaneously or sequentially with the blood or cerebrospinal fluid.

3 ~~10~~ (Previously presented) A method as claimed in claim ~~5~~ wherein the antibody is a monoclonal antibody, a polyclonal antibody, immunologically active antibody fragments, humanized antibody, an antibody heavy chain, an antibody light chain, a genetically engineered single chain F<sub>v</sub> molecule, or a chimeric antibody.

4 ~~11~~ (Previously presented) A method as claimed in claim ~~5~~ wherein the detectable substance is alkaline phosphatase.

6 ~~12~~ (Previously presented) A method as claimed in claim ~~11~~ wherein the alkaline phosphatase is detected using a fluorogenic substrate.

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6 13. (Previously presented) A method as claimed in claim 12<sup>5</sup> wherein hK6 is detected determined using time-resolved fluorescence.

14-15. (Cancelled)